

AGREEMENT BETWEEN THE GOVERNMENT OF THE UNITED STATES OF AMERICA

AND

THE GOVERNMENT OF AUSTRALIA

CONCERNING CO-OPERATIVE AND COLLABORATIVE RESEARCH, DEVELOPMENT

AND ENGINEERING

PROJECT ARRANGEMENT, SERIAL NO N-05-0042

ON

THE AUSTRALIA/UNITED STATES PHASED ARRAY RADAR

(AUSPAR) PROJECT

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This Project Arrangement (PA) is made subject to the terms and conditions of the Agreement between the Government of Australia and the Government of the United States of America Concerning Co-operative and Collaborative Research, Development and Engineering dated 21 October 1994 (the Agreement). As the responsible agencies of the two Governments for the Agreement, the Australian Department of Defence (Australian DOD) and the United States Department of Defense (U.S. DOD) (hereinafter referred to as the Participants) have determined as follows:

SECTION 1 RATIONALE

Cooperatively develop, test, and evaluate medium and high powered tile demonstrators, an element of an advanced maritime active phased array radar, to reduce the risk and cost of future maritime radar development and production and/or radar upgrades for both Participants.

SECTION 2 DEFINITIONS

AUSPAR	Australia/United States Phased Array Radar
CEA FAR	Low Power Active Phased Array Radar developed by CEA Technologies, Pty, Ltd.
Contractor Support Personnel	Persons specifically identified for support contracts who provide administrative, managerial, scientific, or technical support services to a Participant under a contract with that Participant that prohibits using information received under the contract for any other purpose than those authorized in the Agreement, this PA and in the contract.
Cooperative Project Personnel (CPP)	Military members or civilian employees of a parent Participant assigned to the host Participant's facilities who perform managerial, engineering, technical, administrative, contracting, logistics, financial, planning or other functions in furtherance of the Project.
Controlled Unclassified Information	Unclassified information to which access or distribution limitations have been applied in accordance with applicable national laws or regulations. Whether the information is provided or generated under this PA, the information will be marked to indicate its "in confidence" nature. Australian export-controlled information will be marked as "Australian Export Controlled." U.S. export-controlled information will be marked as "International Traffic in Arms Regulations (ITAR)-Controlled."
Financial Costs	Project costs met with monetary contributions.
Financial Management Procedures Document (FMPD)	A document that describes the estimated schedules, handling, and auditing of monetary contributions for the Project in which one Participant contracts on behalf of the other Participant or on behalf of both Participants to fulfill the objectives of the Project.

Maritime Theater Missile Defense (MTMD)	Missile defense, which includes maritime anti-air warfare, maritime anti-surface warfare and maritime theatre ballistic missile defense.
Medium Power Tile	Tile design capable of providing medium power level capability.
Participant	A signatory to this PA represented by its military and civilian DOD personnel. Contractors and Contractor Support Personnel will not be representatives of a Participant under this PA.
Phased Array Antenna	An array of radiating elements, each of which can be driven with an adjustable phase and/or time delay to steer the resultant beam in a desired direction to detect and track targets over a wide sector without mechanical movement of the antenna.
Project Equipment	Any material, equipment, end item, subsystem, component, special tooling or test equipment that is either owned by one Participant and provided for use in the Project or is jointly acquired by both Participants for use in the Project.
PU2	Power Upgrade 2, High Power Active Phased Array Radar based on CEA FAR Technology.
Radar	A system that uses reflected electromagnetic radiation to determine the velocity, location, and other characteristics of a targeted object.
Receiver	The equipment and computer programs from the S-band output of the antenna (i.e. Subarrays) to and including the A to D converters.
Tile	Antenna lowest replaceable unit, a tile provides 64 wideband elements.
T/R Module	Transmit and Receive Module.

SECTION 3 OBJECTIVE

The objective of this PA is to develop and test a sample number of medium and high power tile demonstrators to support development of future maritime radars and upgrades to existing radar systems including for Maritime Theatre Missile Defense (MTMD) applications.

SECTION 4 TECHNICAL SCOPE

4.1. The following work will be carried out under this PA:

- 4.1.1. Formation of working groups in specific radar related technical areas to provide information and recommendations to the Project Directors (PDs).
- 4.1.2. Definition of system requirements for medium and high power tile demonstrators to include top-level design document development and functional design.
- 4.1.3. Development of systems designs, computer programs, and hardware to include: software development; antenna development and the design and build of receivers and data loggers; processor hardware upgrades; and sub-system integration for the demonstrators.
- 4.1.4. Integration and test planning of systems and subsystems for the four demonstrator tiles.
- 4.1.5. Testing of the four demonstrator tiles and analysis of the results.
- 4.1.6. Development and dissemination of a final report on the Project.

4.2. The Participants will jointly share the following tasks:

- 4.2.1. Develop and implement a Project plan within 90 days of PA signature;
- 4.2.2. Develop an Financial Management Procedures Document (FMPD), submit the FMPD to the AUSPAR Steering Committee (AUSPAR SC) for approval within 90 days of PA signature, and implement the FMPD;
- 4.2.3. Participate in technical interchange and design review meetings as described in the Project plan;

- 4.2.4. Define systems requirements to include top-level design document development;
- 4.2.5. Develop and provide a test and evaluation capability for staged risk management of active phased array radar capability in a radar system;
- 4.2.6. Develop four tile demonstrators incorporating medium and high power capability based on a segmented aperture approach. The first two tile demonstrators will be medium power tiles, the second two tile demonstrators will be high power tiles. The first two tile demonstrators may be upgraded to high power tile configuration;
- 4.2.7. Conduct joint testing including planning, execution and analysis of data;
- 4.2.8. Test air warfare applications, digital processing, high power T/R Modules and thermal management architectures;
- 4.2.9. Test the four demonstrator tiles in various environments including ease of calibration of offset tile segments, and shock and vibration;
- 4.2.10. Develop a cost model and verify that this model can predict the future cost of a radar system; and,
- 4.2.11. Prepare and disseminate a final report on the Project.

SECTION 5 SCHEDULE

5.1. The Project will proceed according to the following phases and schedule:

Phase	Start	Duration
Phase 1: Form working groups and develop Project plan and FMPD	Start of Project, T0	3 Months
Phase 2: Define system requirements	Start of Project, T0	6 Months
Phase 3: Develop, design and build modules	Start of Project, T0 + 6 Months	12 Months
Phase 4: Conduct integration testing, perform modifications, and plan joint testing	Start of Project T0 + 18 Months	12 Months
Phase 5: Conduct joint testing	Start of Project T0 + 30 Months	6 Months
Phase 6: Prepare final report	Start of Project T0 + 36 Months	4 Months

5.2. The final report will be prepared and transmitted as per paragraph 5.1. above, but in no case later than six months before the termination date for this PA.

SECTION 6 FUNDING

6.1. Each Participant will contribute its equitable share of the full costs of the Project, including personnel, overhead and administrative costs, and costs of claims, and will receive an equitable share of the results as set out in this PA.

6.2. The total cost of the work under this PA will not exceed the sum of the following:

6.2.1. The U.S. DOD Financial Cost will not exceed \$12M (U.S. dollars).

6.2.2. The Australian DOD Financial Cost will not exceed \$17.5M (Australian dollars).

6.3. The Participants recognize that it may become necessary for the contracting Participant, consistent with its national laws, to incur contractual or other responsibilities for the benefit of the other Participant prior to receipt of the other Participant's funds under this PA. In such event, the other Participant will make such funds available in such amounts and at such times as may be required by the contract or other responsibilities, and will pay their equitable share, as mutually determined, of any damages and costs that may accrue from the performance or cancellation of the contract or other responsibilities in advance of the time such payments, damages, or costs are due.

6.4. The PD's will maintain complete records of all work performed, obligations and commitments incurred, and monies received and expended, and will ensure that the normal national audit surveillance and checks of accounting and procurement procedures will be applied in accordance with the standard accounting practices of each Participant. Audits for the Project will be performed on an as-required basis, as mutually determined by the AUSPAR SC. To the extent consistent with each Participant's laws, regulations, policies, and procedures, reports of such audits will be released to both Participants. The Participants will assist each other on any audit elements required to satisfactorily perform the audit. Where one Participant's auditors need to obtain or to inspect specific Project financial data of the other Participant which in their view is relevant to being able to fulfill its national

responsibilities, the Participants will grant access to such specific financial information as required.

6.5. Cooperative efforts of the Participants over and above the mutually determined tasks detailed in the Scope of Work, Sharing of Tasks and Financial Arrangements Sections will be subject to amendment to this PA or signature of a new PA.

6.6. The cost of Cooperative Project Personnel (CPP) assigned in accordance with Section 10 below will be borne as follows by the parent Participant:

- 6.6.1. All pay and allowances.
- 6.6.2. Transportation of the CPP and their personal property to the place of assignment in the host Participant's nation prior to the CPP's commencement of a tour of duty, and return transportation of the foregoing to the place of assignment in the host Participant's nation upon completion or termination of the tour of duty.
- 6.6.3. Compensation for the loss of, or damage to, the personal property of the CPP or the CPP's dependents, subject to the laws and regulations of the government of the parent Participant.
- 6.6.4. Preparation and shipment of remains and funeral expenses in the event of the death of the CPP or the CPP's dependents, subject to the laws and regulations of the government of the parent Participant.

6.7. The host Participant will be responsible for CPP assignment-related costs such as CPP cost of travel incurred in support of Project efforts, CPP-related training costs, contract award, contract administration, office space, security services, information technology services, communication services, and supplies.

SECTION 7 CONTRACTING

7.1. The Australian DOD will be primarily responsible for contracting for this Project in accordance with Australian contracting laws, regulations, policies, and procedures. Some U.S. DOD contracting will be performed in support of this PA as defined in SECTION 3 (OBJECTIVES), and will be performed by a U.S. contracting officer in accordance with U.S. contracting laws, regulations, policies, and procedures. The contracting officers are the exclusive source for providing contractual direction and instructions to contractors. A representative from the non-contracting Participant may be permitted to observe the contracting Participant's contract negotiations, subject to contractor consent.

7.2. The PD's will be responsible for the coordination of activities relating to the Project, and will cooperate with the contracting officers in the areas of contract procedures, contract negotiation, evaluation of offers, and contract award. The PD's will review statements of work prior to and during the development of solicitations to ensure that they are in accordance with this PA and with the Agreement. In addition, the contracting officers will keep the PD's advised of all financial arrangements with the prime contractor. Unless approved by the AUSPAR SC, the contracting officer will not incur contractual or other responsibilities using the non-contracting Participant's monetary contributions prior to approval of the FMPD by the AUSPAR SC.

7.3. The contracting officers will insert into prospective contracts (and require its contractors to insert in subcontracts) suitable provisions to satisfy the requirements of this PA, including SECTION 7 (CONTRACTING) and SECTION 9 (USE OF INFORMATION), and of the Agreement, including Article 8 (Exchange and use of information), Article 9 (Security, release, and transmission of information), and Article 12 (Third party sales and transfers). During the contracting process, the contracting officers will advise prospective contractors of their responsibility to immediately notify the contracting agency, before contract award, if they are subject to any license or agreement that will restrict their freedom to disclose information or permit its use. The contracting officers will also advise prospective contractors to employ their best efforts not to enter into any new agreement or arrangement that will result in restrictions.

7.4. In the event the contracting officers are unable to secure adequate rights to satisfy the requirements of this PA and of the Agreement, including to use and disclose information as required by Article 8 (Exchange and use of information), and Article 9 (Security, release, and transmission of information) or is notified by contractors or potential contractors of any restrictions on the disclosure and use of information, the matter will be referred to the AUSPAR SC for resolution. No new contracts will be placed until the AUSPAR SC has mutually determined the consequences of the failure to secure adequate rights or of any such restrictions and resolved the matter in conformity with the responsibilities set out in the Agreement.

7.5. The contracting officers will immediately advise the PD's of any cost growth, schedule change, or performance problems of any contractor for which the contracting officers are responsible.

7.6. Upon mutual determination of the AUSPAR SC and consistent with SECTION 3 (OBJECTIVE), a Participant may contract for the unique national requirements of the other Participant.

7.7. The transfer of export-controlled information furnished by one Participant will be authorized by the government of the furnishing Participant only to those contractors of the other Participant who will limit the end use of the Information received for the sole purpose of furthering the purposes authorized under this PA. The Participants will establish legal arrangements with their contractors to require that their contractors do not retransfer or otherwise use export-controlled information for any purpose other than the purposes authorized under the Agreement and this PA. Such legal arrangements will also provide that the contractor will not re-transfer the export-controlled information to another contractor without the government of the furnishing Participant's consent.

SECTION 8 CLAIMS

8.1. Claims arising under any contract awarded pursuant to this PA will be resolved in accordance with the provisions of the contract. The contracting Participant will not indemnify contractors against third party liability claims, unless otherwise mutually determined in writing by the Participants. The Participants will share any cost of such contract claims as follows:

- 8.1.1. For contracts where one Participant contracts solely on its own behalf, the Participant awarding the contract will pay the cost of claims arising under such contracts.
- 8.1.2. For contracts where one Participant contracts on behalf of the other Participant, the Participant on whose behalf the contract was awarded will pay the cost of claims arising under such contracts.
- 8.1.3. For contracts awarded on behalf of both Participants, the cost of claims under such contracts will be shared in the same ratio as they share the Financial Costs under this PA.

8.2. Each Participant will be responsible for responding to claims of intellectual property rights infringement made on its territory and will consult during the handling and prior to any settlement of such claims, including the apportionment of any associated costs. Each Participant will provide all reasonable assistance to respond to such claims as requested.